



STATE OF MARYLAND

DMMH

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November 20, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:45 Reporting for the week ending 11/14/09 (MMWR Week #45)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

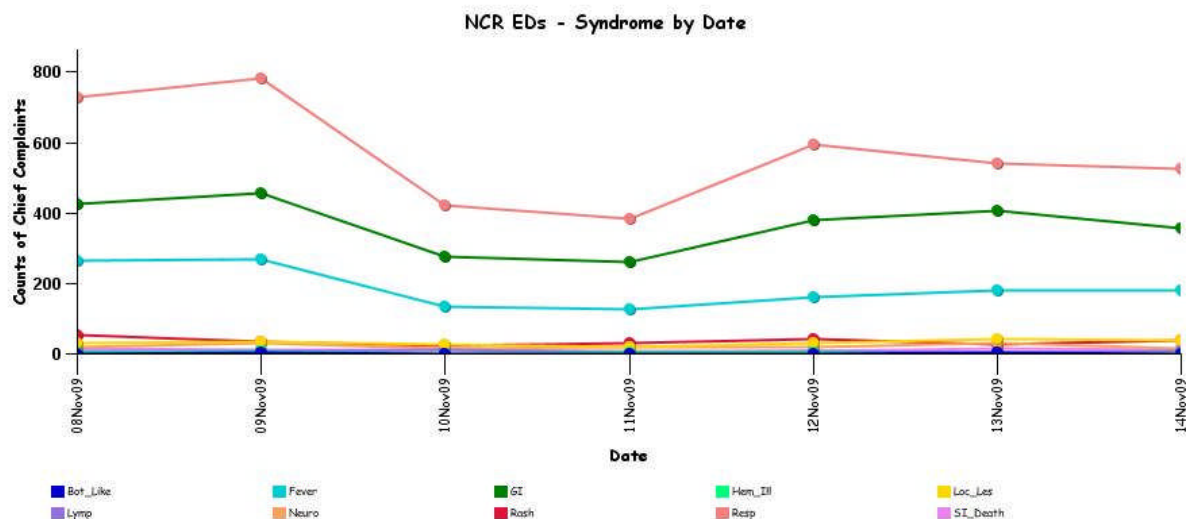
SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.

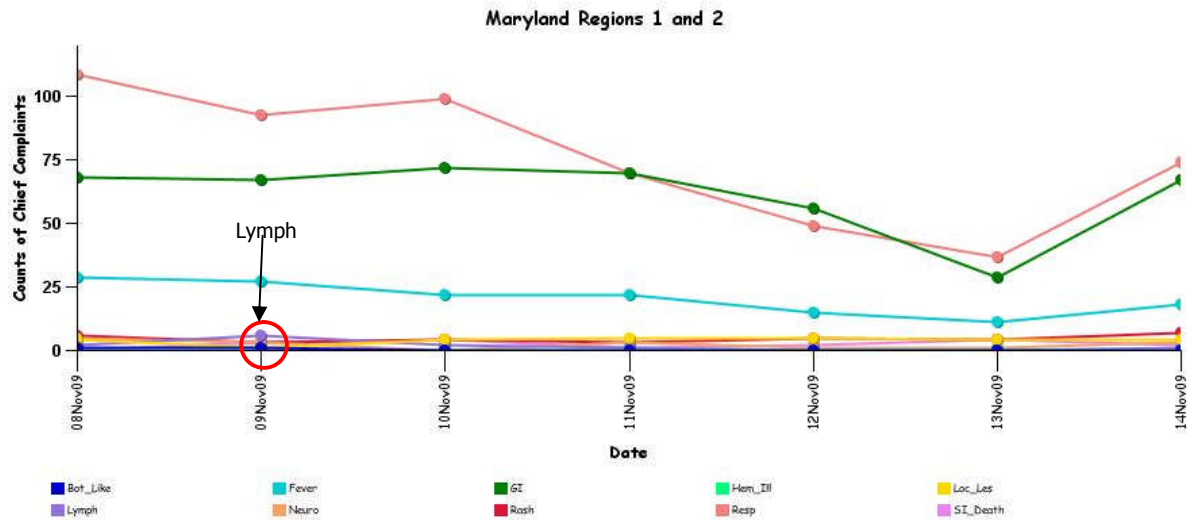
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

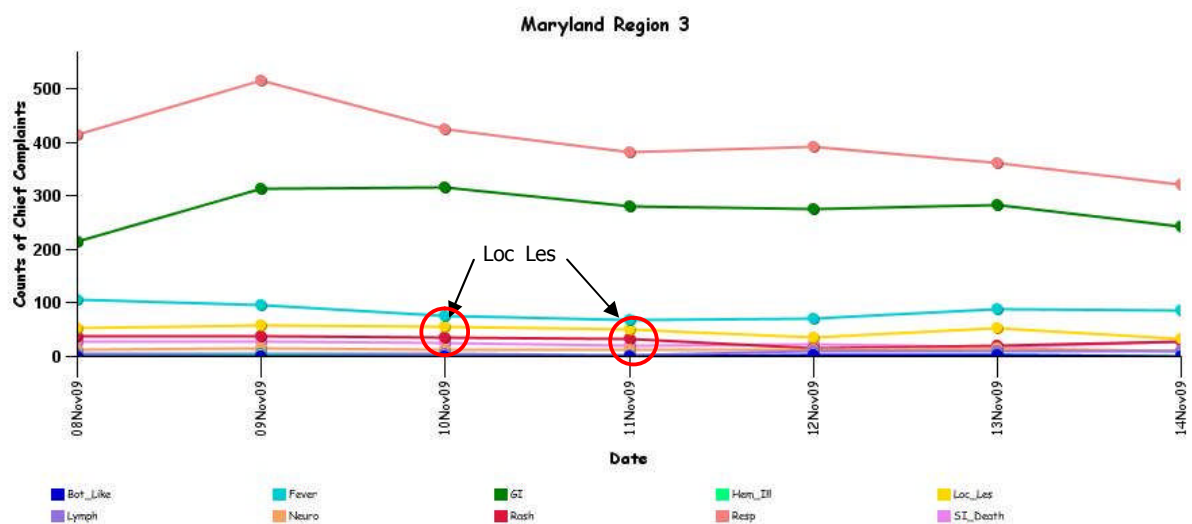


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

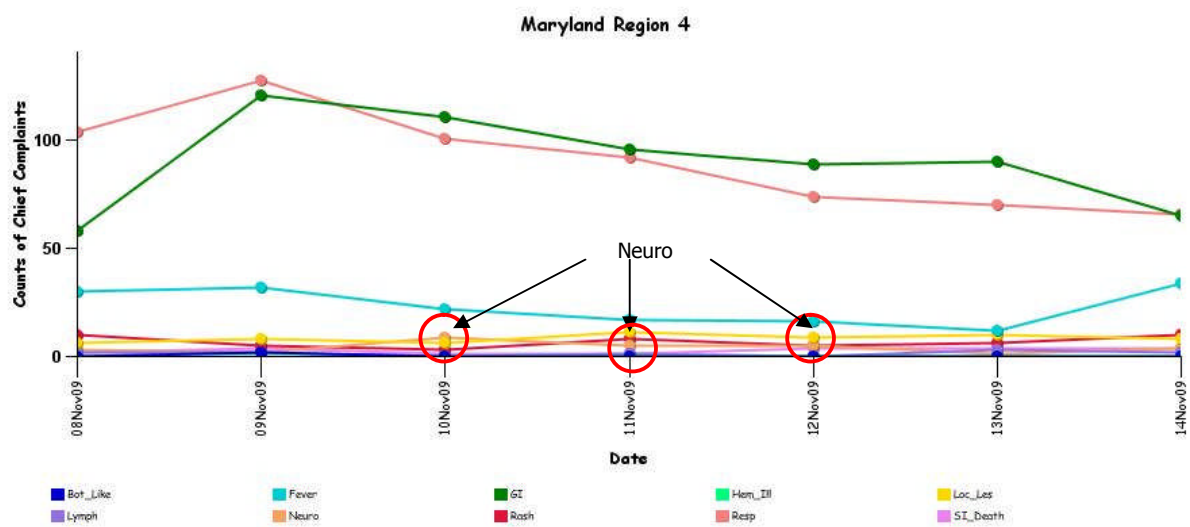
MARYLAND ESSENCE:



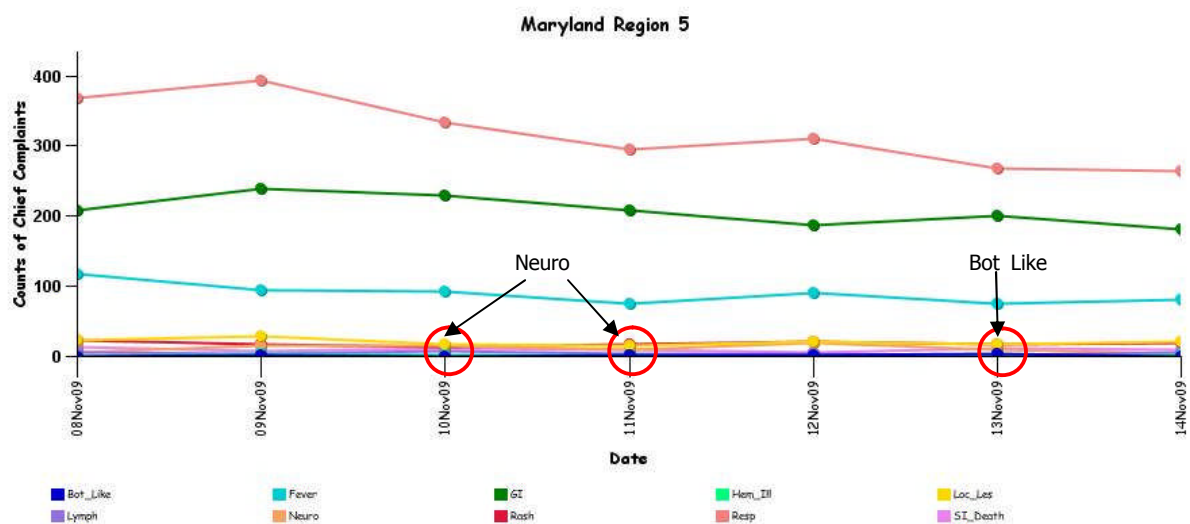
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



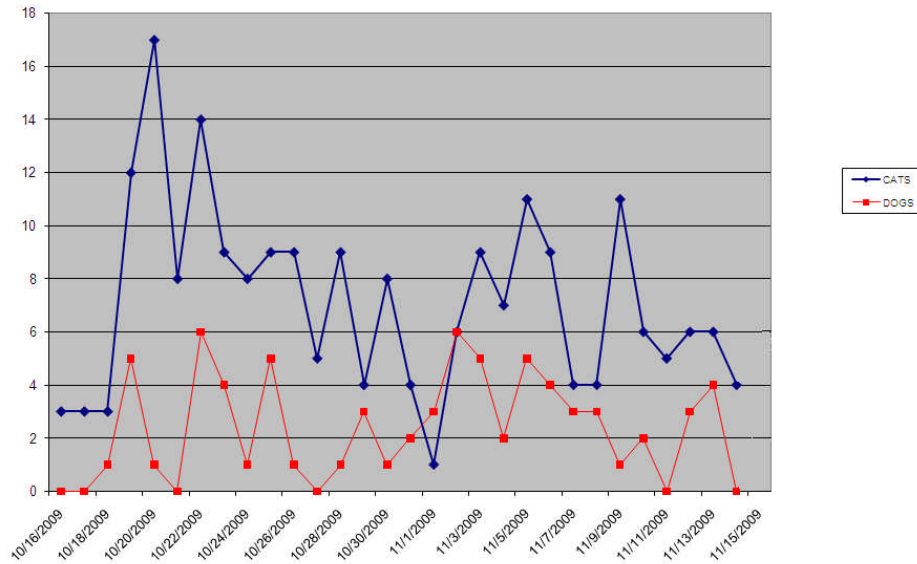
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

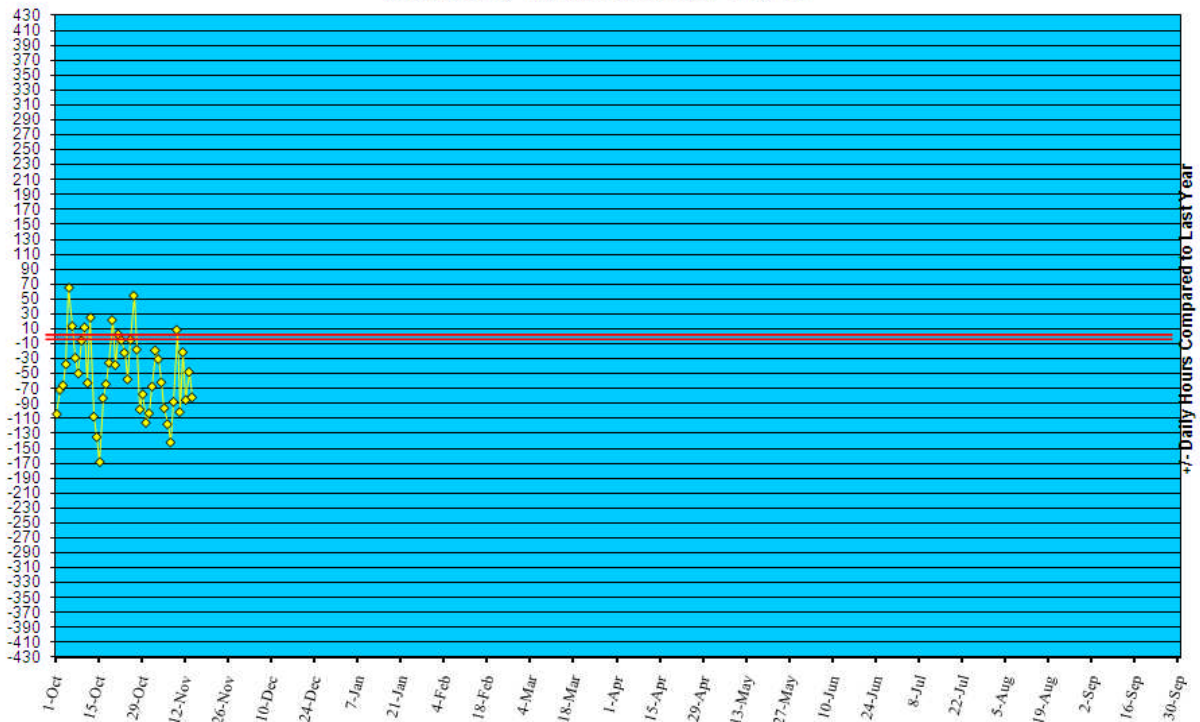
Dead Animal Pick-Up Calls to 311



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '09 to November 14, '09**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2009 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (Nov 08- Nov 14, 2009):	09	0
Prior week (Nov 01- Nov 07, 2009):	08	0
Week#45, 2008 (Nov 02 – Nov 08, 2008):	23	0

OUTBREAKS: 05 outbreaks were reported to DHMH during MMWR Week 45 (November 8- 14, 2009):

4 Respiratory illness outbreaks

3 outbreaks of ILI in Schools
1 outbreak of INFLUENZA at a School

1 Rash illness outbreak

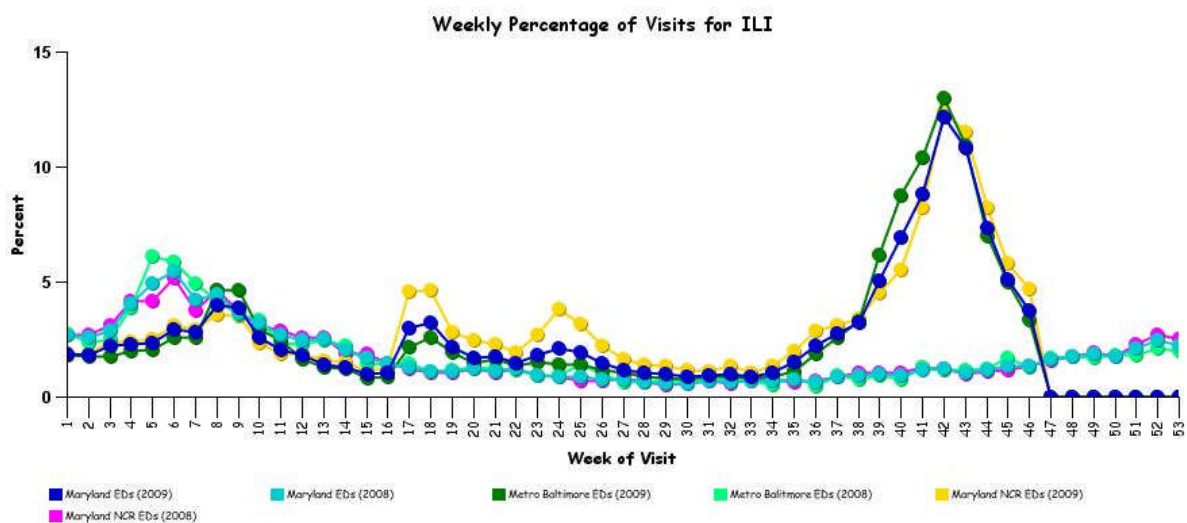
1 outbreak of SCABIES at a Nursing Home

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 45 is WIDESPREAD.

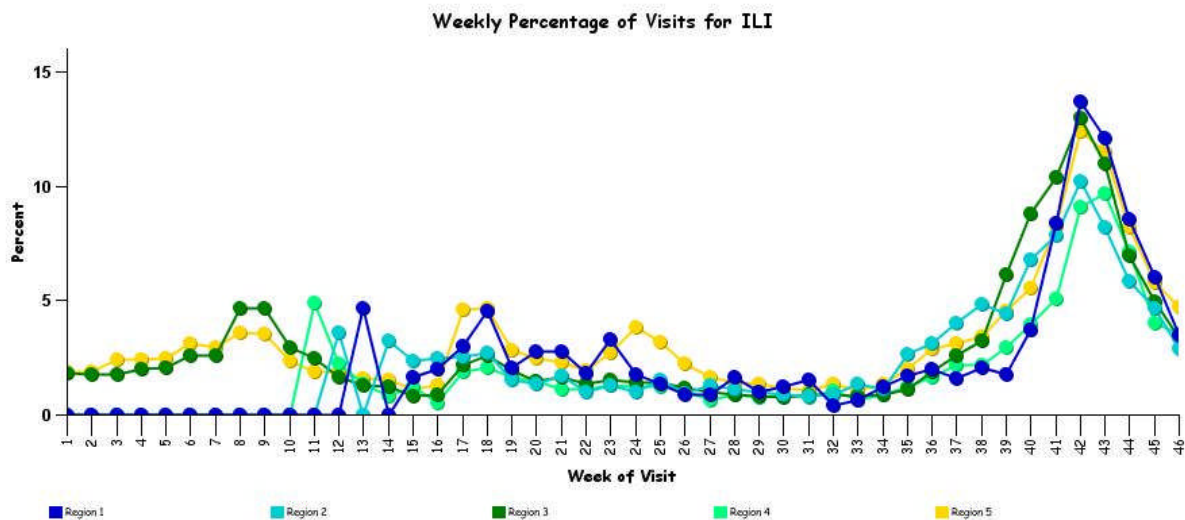
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



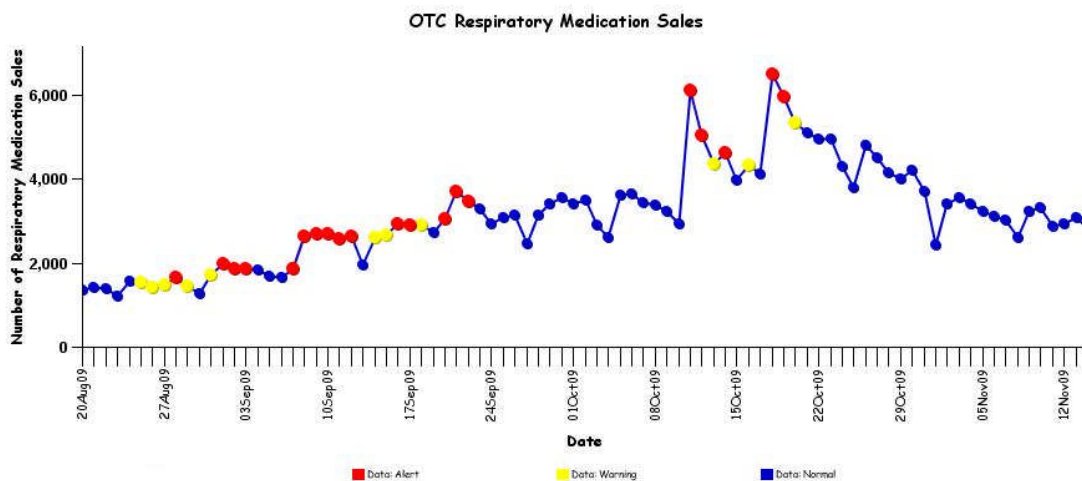
* Includes 2008 and 2009 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2009 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5
 2009 data for these regions are depicted separately to establish baselines, due to the addition of new hospitals in these regions.

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:
[http://preparedness.dhmmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex\(Vers7.2\).pdf](http://preparedness.dhmmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Vers7.2).pdf)

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of September 24, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 442, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

AVIAN INFLUENZA, LPNAI, H5N3 (CZECH REPUBLIC): 10 Nov 2009, The Czech [agriculture] authorities reported an outbreak of low pathogenic avian influenza (H5N3) in a holding with mallard ducks for restocking of game in Jihocesky. From 40 cloacal swabs taken in the frame of regular monitoring, one sample appeared positive. Clinical signs were absent. All 280 susceptible birds were destroyed. H5 and H7 avian influenza in their low pathogenic form in poultry are notifiable diseases.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA (H1N1) 2009, ANIMAL, FERRET (USA): 14 Nov 2009, A total of 3 more ferrets in Oregon have tested positive for the 2009 pandemic influenza H1N1 virus, state officials confirmed this afternoon [11 Nov 2009], bringing the total number of cases affecting ferrets in the state to 4. Dr. Emilio DeBess, the Oregon state public health veterinarian, says the ferrets that tested positive for the H1N1 virus are among a group of 9 ferrets that live with a family in the Roseburg, Oregon, area. All 9 ferrets, DeBess said, exhibited flu-like symptoms, but only 3 were taken to the veterinarian. Those 3 tested positive. DeBess says members of the family that owns the ferrets were sick with flu-like signs the week prior to the animals becoming ill. He adds that there are no indications that the ferrets passed the virus on to people or any other species of animal. The 1st ferret in Oregon confirmed with the 2009 pandemic influenza H1N1 virus was diagnosed in early October. All of the sick ferrets have recovered. DeBess reminds pet owners that they should contact their veterinarian if their pets show any signs of illness, and that they should take precautions to help reduce the spread of influenza between themselves and their pets. "The key message is to protect your animals much like you protect your family," he says. "Wash your hands, cover your cough and your sneeze, and do your best to prevent contaminating objects your pet may come into contact with."

INFLUENZA PANDEMIC (H1N1) 2009, (MADAGASCAR): 13 Nov 2009, The capital of Madagascar, Antananarivo, has been hit by an outbreak of the new pandemic influenza A/H1N1/2009 virus. The 1st case was confirmed by the National Influenza Center (NIC) at the Institut Pasteur from Madagascar on 12 Aug 2009. From that date only sporadic cases (16) were confirmed until 9 Oct 2009. All these cases had a history of travel from a country where community transmission has been demonstrated. During this period, in order to contain the spread of the virus within the community, the Department of Emergencies of the Ministry of Health [instituted] a national containment plan. The guidelines are isolation of confirmed cases, disinfection, and treatment with Tamiflu [oseltamivir] of all confirmed cases as well as their contacts. The situation changed on 9 Oct 2009 when a large outbreak occurred in one of the biggest schools in Antananarivo (Lycee Francais de Tananarive). This school accommodates more than 1500 students including 200 boarders. Since that 1st outbreak, the pandemic (H1N1) 2009 virus has spread within the capital despite the efforts of the health authorities to contain the outbreak. As of 12 Nov 2009, the NIC has tested more than 1500 specimens and confirmed 581 cases. The majority of confirmed cases are located in the capital and suburbs, but recent cases (13) have been confirmed in large cities like Antsiranana (North), Toamasina (East Coast), Mahajanga (West Coast) and Taolagnaro (South), and in a small village (Ambohimandroso). Due to limited resources, the strategy at present is to test as a priority specimens from sentinel sites that cover 19 (out of 111) health districts in all Madagascar in order to measure the spread of the virus through the country. Hospitalized cases or patients at risk are also tested as a priority.

INFLUENZA (H1N1) 2009, DENGUE CO-INFECTION (VIET NAM): 12 Nov 2009, 2 patients infected with both influenza pandemic (H1N1) 2009 virus and dengue fever have died in Hanoi, Nguyen Hong Ha, deputy head of the National Institute of Tropical and Infectious Diseases, said on Wednesday [11 Nov 2009]. Ha said both patients had been admitted to the institute last week in critical condition. The nation's 1st 2 patients with the combination of swine flu [pandemic (H1N1) 2009 virus infection] and dengue [fever virus] detected early this month [November 2009] had also been treated at the institute. They have been discharged after full recovery. According to the Ministry of Health, the World Health Organization (WHO) so far has reported 7 cases with both dengue fever and swine flu, with one death in Barbados, the island in the West Indies. Viet Nam has so far recorded 41 deaths related to swine flu since May 2009. A 16-year-old girl who was 6 months pregnant in the Mekong Delta province of Kien Giang was the latest victim, the Ministry reported. The Ministry's Preventive Health and Environment Department said a meeting on [pandemic 2009] H1N1 vaccine distribution among 8 Southeast Asian countries will be held Thursday [12 Nov 2009] in Bangkok. The 1.2

million doses of vaccine that WHO will sponsor for Viet Nam are expected to arrive next month [December 2009]. The US will support the countries with syringes and training for H1N1 vaccination campaigns, the department said. In the meantime, the GlaxoSmithKline (GSK) Viet Nam Company has applied for a license to import and distribute the vaccines, according to the Drug Administration of Viet Nam, which also said all procedures will be completed as soon as possible. Viet Nam plans to import 500 000 doses of the vaccines as a preventive measure for high-risk population segments like pregnant women and patients with chronic diseases.

INFLUENZA PANDEMIC (H1N1) 2009, ANIMAL, DOMESTIC, HAJJ: 10 Nov 2009, The recent detection of the pandemic H1N1 virus in pets signals another facet in the evolving dynamics of the 2009 influenza pandemic. The robust animal health surveillance systems in place in the US and awareness amongst stakeholders can take credit for the swift recognition of H1N1 transmission to a cat and a ferret. However, where such systems do not exist, rapid detection may not be possible as awareness may be low or resources limited. Regarding the current fears about hajj-related H1N1 transmission: firstly, in the region, and despite the preferred WHO/CDC nomenclature of 'influenza pandemic (H1N1) 2009 virus', the misleading name 'swine flu' is used more often than not. Joining the Arabic word for swine (transliterated 'alkhanaazeer') leaves an impression in a subset of the population that, there being no local swine population, the risk of transmission to animals is nil. Secondly, the "unusual" hosts of H1N1 are not scanty. Feral cats are ubiquitous in the hajj ecology and intimately intermingle with the human milieu. They are definitely a bio-security risk for slaughterhouses and captive breeding operations. Camels are susceptible to influenza A and B and other respiratory viruses. In particular, fatal influenza outbreaks due to another human H1N1 virus have been reported in camels in Mongolia. Hopefully, the Ministry of Health's measures will seriously minimize human-to-human transmission. However, if transmission fears manifest, homebound asymptomatic pilgrims may shed and transmit pandemic (H1N1) 2009 virus to their animals in say Nigeria or Sudan, which may remain undetected. A knowledge-based risk assessment of the complex ways in which these and other animals that are part of the micro hajj ecology interact with different pilgrim groups and their peculiarities may be warranted.

Resources:

<http://www.cdc.gov/h1n1flu/>

<http://www.dhmv.maryland.gov/swineflu/>

NATIONAL DISEASE REPORTS

EASTERN EQUINE ENCEPHALITIS, MOSQUITO SURVEILLANCE (NEW HAMPSHIRE): 14 Nov 2009, More mosquito batches tested positive for Eastern equine encephalitis (EEE) in New Hampshire this year [2009] than ever before. Add to that the fact the state tested considerably fewer [mosquito] batches than in years past, and it adds up to a bad year for the presence of EEE in the Granite State. And it could mean another bad year ahead in 2010. The only good news is there was only one human case of EEE this year: a 3-year-old from Candia who survived. "It was way, way higher than it ever has been before," said Alan Eaton, an entomologist with the University of New Hampshire Cooperative Extension. He said some of that increase could be attributed to the way the state tested this year -- but not all. "It suggests to me the risk this year was the highest since we have been keeping records, 2003 or 2004," Eaton said. This year, 73 mosquito batches tested positive for EEE, according to Beth Daly of the state Department of Health and Human Services. That compares to 8 positive batches last year and just 6 in 2007. And, interestingly, the state tested far fewer batches this year, Daly said. "We tested significantly less -- 3,887 tested pools," she said. "The last couple of years, we've been testing around 10 000 or more. We lost federal funding and get no state funding, so we did more targeted testing." The state targeted mosquito species most likely to test positive, so although they tested fewer batches, the testing was more efficient, Daly said. Regardless, the numbers bear out a high level of EEE presence in New Hampshire in 2009. "We may have expected more human cases ... but it's hard to extrapolate," Daly said. "We certainly had human-biting mosquitoes that tested positive. We were probably lucky." (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

EBOLA HEMORRHAGIC FEVER (CONGO): 13 Nov 2009, The Minister of Health of the Democratic Republic of the Congo (DRC), Augustus Mupipi Mukulunya, confirmed in a news release on Friday [6 Nov 2009] in Kinshasa, the presence of Ebola hemorrhagic fever virus in the city of Kaluamba located in the health area of Mweka, Kasai Occidental (central DRC). An alert has been declared. Calling on appropriate organizations, including the World Health Organization (WHO), to support the DRC in coordinating the response to this epidemic, the Minister said it's the 2nd time that this disease has occurred in the health zone of Mweka. The 1st outbreak had occurred in that area between April and October 2007. Since December 17, 2008, there have been 13 cases, including 9 deaths, according to statistical data from the medical inspector of the province of Kasai Occidental. (Viral hemorrhagic fevers is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (INDIA): 11 Nov 2009, In Uttar Pradesh, 7 more children have succumbed to Japanese encephalitis [virus infection-JEV], taking the toll in the deadly brain fever to 30 this month [November 2009]. The deaths were reported in

Mahrajganj, Kushinagar, and Gorakhpur districts yesterday [9 Nov 2009], additional director (Health) P Rawat said. He said 16 new patients suffering from the disease have been admitted to the BRD Medical College in Gorakhpur. Of the total 2839 cases of Japanese encephalitis and acute encephalitis syndrome reported from the region this year [2009], 496 patients have died, Rawat said. (Viral Encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

EBOLA HEMORRHAGIC FEVER, SUSPECTED (UGANDA): 10 Nov 2009, Panic gripped Mityana Hospital following a report of a case of suspected Ebola fever yesterday, Sun 8 Nov 2009. The patient was brought to the hospital at midday. The medical workers immediately set up an isolation centre where the suspect was quarantined to receive treatment. Muamin Kalule, the senior nursing officer in charge of the isolation centre, said the patient had manifested signs of the deadly hemorrhagic fever, which included vomiting, abdominal pain and bleeding. "These are the signs for Ebola [hemorrhagic fever] so we have to take extra care," she said. The patient, who hails from Mawanda village in Kakindu sub-county, said she had been having a fever for the past 4 days after eating antelope meat. Kalule, however, disagreed that the patient could have developed the symptoms from the meat, saying other family members who had eaten the food were in good health. She said the district surveillance officer, Dennis Mono, had taken samples to Kampala and they were waiting for the results [of diagnostic tests], which are expected today [9 Nov 2009]. The director general of health services, Dr. Sam Zaramba and the Mityana health officer, Dr. Fred Lwasampijja, said they were not aware of the suspected outbreak. (Viral hemorrhagic fevers is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

CRIMEAN-CONGO HEMORRHAGIC FEVER, FATAL (GERMANY EX AFGHANISTAN): 09 Nov 2009, US military officials sent a medical team to a remote outpost in southern Afghanistan this week [week of 2 Nov 2009] to take blood samples from members of an Army unit after a soldier in the unit died from an Ebola-like [that is, hemorrhagic fever] virus [infection]. Dr Jim Radike, an expert in internal medicine and infectious diseases at the Role 3 Trauma Hospital at Kandahar Air Field, told The Washington Times that a 22 year old sergeant from River Falls, Alabama, died on 16 Sep 2009 from what turned out to be Crimean-Congo hemorrhagic fever [CCHF] after he was bitten by a tick. The virus is transmitted by infected blood and can be carried by ticks, according to the Centers for Disease Control and Prevention (CDC). Dr Radike, who is with the Navy, said the medical team "will be taking blood samples and the results may take several weeks to get back." He called it "a precautionary measure." Dr Radike did not say how many individuals would be tested or why the military had waited until now to act. The unit involved is the 5th Stryker Brigade, 2nd Infantry division, A-company 2-1 Infantry. Dr Radke said the [CCHF] hemorrhagic fever is similar to Ebola [hemorrhagic fever] "in that the end there is internal degeneration and external bleeding. From the Black Sea to upper Turkey, you'll see a dozen or more cases a year. Afghanistan falls right in the middle." The disease was first reported in the Crimea in 1944, then in the Congo in 1956, according to the World Health Organization. An outbreak was reported 8 years ago in Quetta, the capital of Pakistan's Baluchistan province, which borders Afghanistan. Symptoms of CCHF include sudden fever, dizziness, neck pain, aching muscles, soreness in the eyes, and sensitivity to light. Early on, nausea, vomiting, and sore throat occur. The virus incubation period depends on how the virus was acquired. If the infection is via tick bite, the incubation period is roughly 1 to 3 days, with a maximum of 9 days, Dr Radike said. If the illness is not caught early, it is often fatal, he said. The mortality rate is 30 per cent, according to CDC. Lt Col Jeffrey French, the sergeant's battalion commander, told The Times from Forward Operating Base Ramrod, to the west of Kandahar City, that the soldier's death "was a tragic loss for everyone." It started out as a small bite on the foot, Col French said. (Viral hemorrhagic fevers is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM, CHEESE, SUSPECTED (RUSSIA): 09 Nov 2009, Doctors in Chelyabinsk confirmed botulism in 4 patients from Magnitogorsk who were admitted into ICU in severe condition at different dates. This information was communicated from the city Public Health administration. The head epidemiologist of the administration Dmitriy Zalozkov said that Chelyabinsk doctors confirmed the diagnosis made in Magnitogorsk. The source of poisoning is suspected to be prepackaged cheese, which all of patients had eaten. However, there is no confirmation yet. All patients are in severe but stable condition. There are no new cases with the same signs and symptoms. Yesterday [2 Nov 2009] after a meeting of the physicians, the clinical diagnosis of 3 of the patients was confirmed. All patients are receiving treatment but recovery may take months. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM (BRAZIL): 08 Nov 2009, Two people from the same family died from botulism after eating canned eggplant [also called aubergine or brinjal] in Rio Preto. The initial symptoms occurred in a 56 year old man who died on 27 Sep 2009. About a week later, his son of 33 fell ill during a trip to Piracicaba, where he died on 5 Oct 2009. For 30 years, there had been no reports of botulism in the city. The results were released on Thursday [5 Nov 2009] by the Institute Adolfo Lutz. Besides the 2 deaths, 2 other people developed the disease. According to the Ministry of Health of Black River, one case was confirmed in the laboratory and 3 by clinical and epidemiological criteria. According to the coordinator of Epidemiological Surveillance of Black River, Luciano Lourencao, all consumed [home] pickled eggplant during a family reunion. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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